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ABSTRACT

This study examined the impact of the Kansas Regents Honors Academy on students who had completed the program since its inception in 1986. A total of 504 of the approximately 1,640 academically superior graduating high school students completed a survey questionnaire that focused on demographic data, college data (degrees, majors, grade point average, and scholarships), community and leisure activities, and honors program experiences. The majority of respondents indicated that the strongest aspect of the Academy was its ability to provide them with a college experience without having to actually enroll at a university. Social awareness and peer interaction were listed as the most valuable assets gained from the Academy experience. It was also found that 79.3 percent of the respondents remained in Kansas to attend one of the six universities participating in the Regents Academy or other Kansas institutions, and that 91.7 percent of respondents received scholarships to attend higher education institutions. At the baccalaureate level, the most popular major was biology, followed by social science, business, engineering, education, English, and math/computer science. Recommendations regarding the continuation of the Kansas Regents Honors Academy are included. A copy of the survey questionnaire is appended. (Contains 21 references and 18 tables.) (MDM)

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KANSAS REGENTS HONORS ACADEMY: A FOLLOW-UP STUDY

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KANSAS REGENTS HONORS ACADEMY:

A FOLLOW-UP STUDY

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KANSAS REGENTS HONORS ACADEMY: A FOLLOW-UP STUDY

I. INTRODUCTION AND PURPOSE OF THE STUDY

The history of honors programs parallels the history of higher education. Higher education started with Socratic dialogue. Subsequently, the Oxford tutorial, the German seminar, and the Guild apprenticeship served as models for contemporary honors programs.

Modern honors programs in the United States appear to have been initiated by Frank Aydelotte when he established an innovative honors approach at Swarthmore College in 1922. He continued to provide the nation's most innovative and influential honors programs throughout the 1930s and 40s based on the education he had received as a Rhodes scholar at Oxford, England. At Indiana University, he developed composition courses that taught writing in conjunction with reading, thinking, and social criticism. His conviction was that writing must be taught as a form of thinking and that the best way to teach "thought" was to require students to read and discuss their readings (Moran, 1992).

An honors program provides an atmosphere in which extremely bright students work closely with professors and peers who stimulate them to develop their academic talents to the fullest. An honors program provides a framework for quality and enriched education within a university structure. Students in honors programs raise their level of academic achievement and challenge professors to teach better. Honors students bring acclaim to the institution through their accomplishments in their academic programs, careers, and service to their communities and states.

In 1986, the Kansas legislature established the Kansas Regents Honors Academy. It was designed as a residential, academic summer program of four weeks duration for

academically superior graduating high school students. Enrollment was restricted to 150 of Kansas' brightest academic stars. All Kansas high schools may nominate outstanding students, primarily graduating seniors, according to school size: 1A and 2A - one student; 3A and 4A - two students; and 5A and 6A - three students.

Participants are then selected by a statewide committee on the basis of grade point average, standardized achievement test scores, school and extracurricular activities, work experience, an original essay, and teacher recommendations. Selection of participants also reflects representation from all forty Kansas senatorial districts.

Academy participants come to a Regents university campus for four weeks in the summer, reside in the residence halls, attend special classes taught by outstanding faculty, and participate in other activities, such as athletics, music, theatre, movies, dances, and field trips. The State of Kansas provides room, board, books, and materials free to attendees. Students are responsible for transportation to and from the Regents institution, for personal incidentals, and tuition costs if they decide to enroll in the academy course for university credit. Planning for each academy is conducted by an advisory committee consisting of representatives from various Regents institutions, a student, a public school official and a Regents staff member.

The Regents Honors Academy brings together students on a campus in order to provide accelerated opportunities for students to master critical thinking. Students who are selected are high achievers based on their past academic records, standardized test scores, and recommendations from their high school principal and counselors. The courses they take focus on liberal arts and science disciplines.

The initial goals were to reduce the number of bright high school dropouts, to attract more academically talented students to Kansas Regents institutions, to challenge

the participants' thinking and reasoning skills, to motivate students to stretch their minds and reach for new ideas, to provide the stimulus of associating with intellectual peers, and to promote the emotional and intellectual growth of students. Courses were to be taught by the best faculty of the host institution and be developed around the strengths of the host Regents university (McKnight, 1987).

The Regents Honors Academy was designed to provide a planned, set curriculum to serve the needs of talented students much as an honors program on a college campus attempts to meet the needs of the best, brightest, and most highly motivated students. The Kansas legislature supports the program with appropriations of $95,000 to $110,000 annually.

The Kansas Regents universities and their locations are as follows: Emporia State University in Emporia, Fort Hays State University in Hays, Kansas State University in Manhattan, Kansas University in Lawrence, Wichita State University in Wichita, and Pittsburg State University in Pittsburg. The Honors Academy has rotated through each of the Regents universities twice since its inception in 1986. The primary emphasis and theme of the programs from each of those years follows.

In 1987, the first Honors Academy was held at Fort Hays State University. The classes were collaboratively taught by faculty from the departments of sociology, philosophy, and biological sciences and were titled, "Living Reflectively in a Scientific World" and "Societal Transition and Emerging Futures." These courses reflected some of the current and future issues of each of these fields.

In 1988, Kansas State University sponsored the Honors Academy. Students attended classes which emphasized Western philosophy, literature, culture, and history. The core course, titled "Foundations of Western Thought," included the critical study of

the works of Homer, Sophocles, Plato, St. Augustine, Shakespeare, Tolstoy, Nietzche, and more. Students also chose one of six related seminars that were offered in the humanities, social-behavioral sciences, and the natural sciences.

"Global Civilization in 2089" was the title of the 1989 Honors Academy sponsored by Pittsburg State University. The program consisted of six courses emphasizing biology, history's influence on the future, mathematics, space science, technology and civilization, and the influence of science on literature and film.

In 1990, the University of Kansas hosted the academy. "Culture and the Twentieth Century" covered privacy, the role of the media in politics, growing up in the twentieth century, abortion, and the roles of men and women in the sciences. The second course, titled "Technology and Change in the Twenty-first Century" emphasized the use and misuse of the world's energy and natural resources, population studies, evolution, the greenhouse effect, and the shortage of scientists and science teachers.

Wichita State University hosted the 1991 academy and focused on seven major topic areas related to the human desire for information, knowledge, understanding, and power. Some of the courses included (1) "Ways of Knowing," which investigated selected topics centering around the understanding and applications of knowledge; (2) "Conservation of Biological Diversity," which explored the significance of biological diversity; and (3) "Ways of Caring," which focused on various aspects of caring for oneself, others, and the environment.

In 1992, the academy was held at Emporia State University and explored the concept of freedom. One course covered freedom as viewed by the humanities and the second course covered freedom as viewed by other disciplines. The classes taught were titled "Philosophical Perspectives on the Nature of Freedom," "Freedom: Meaning and

Selective Perception," "Freedom: Restricted and Unrestricted Influences in Art," and "Freedom: Constraint and Human Possibility." There were also satellite courses that were taught along with these courses.

"Thinking into the 21st Century" was the theme of the 1993 Honors Academy at Fort Hays State University. The courses examined the process of thinking logically and critically, thinking about values and rights, and thinking about our transition into the next century. In addition to the core course, titled "Thinking Reflectively in a Scientific World," all students attended one of six companion courses covering issues from psychology, philosophy, French culture, health care, the environment, and ideas and ideologies from 1793 to 1993.

Kansas State University's 1994 Honors Academy had as its theme "Moving Forward from the Last Millennium: The Impact and Implications of the Last 1,000 Years." The program examined the impact of the past on our world today and the implications for our future. Students were required to attend the same core class, "Critical Texts and Concepts," which provided an introduction to the humanities as they have contributed to shaping Western thought. Additionally, students chose from one of six other courses with emphases on war and society, nature and the ecosystem, mythology, the media, technology, and work.

In 1995, Pittsburg State University developed the theme "Rights, Resources, and Responsibilities in the 21st Century." The core courses provided instruction on the intellectual foundations of the current political world, analyzed the current trends and their probable consequences, and helped students develop skills to make principled decisions on the probable moral and social dilemmas of the future. The companion

courses that were offered investigated issues concerning technology and the environment, poetry, mathematical decision making, wealth, poverty, democracy, and more.

"Anthropology of the Nighttime Sky" was the theme for the Honors Academy in 1996 hosted by the University of Kansas. It provided a cross-cultural exploration of human thought about the sky, its phenomena and objects. This course explored the myth, legend, and stories of our ancestors and their interest in the heavens and celestial bodies. In addition to this course, students selected one of three satellite courses in a specific area of interest in the sciences, social sciences, and mathematics.

Wichita State University held the 1997 academy with a theme of "Cities." The courses offered an interdisciplinary exploration into the origins, nature, mechanics, and future of cities as human communities, using Wichita, Kansas, as the text. The core course was an exploration into the history and development of our world's cities. The supporting classes included instruction of Plato's *Republic*, city policy, archeology and cities, and a reflection of cities in cinema and the theatre.

The 1998 Regents Honors Academy at Emporia State University brought together the arts and humanities as well as the natural and social sciences under the general theme of "Tradition and Challenges to Tradition." The core course examined the role tradition has played in shaping our understanding of art and beauty, the nature of the universe, gender roles, and acceptable modes of behavior. This course contained components from the fields of sociology, art, history, and philosophy. Supporting classes included instruction in physics and astronomy, drama, biological theory, civil rights issues, and mathematical theory.

The primary purpose of this follow-up study is to investigate the impact of the Kansas Regents Honors Academy on the students who attended the academy over the

past twelve years since its inception in 1986. Specifically, the study will (1) investigate how many attendees enrolled in Regents universities; (2) provide information on what those individuals majored in, their cumulative grade point averages (GPA), scholarships received, college employment, graduate degrees obtained, leisure and community activities, parental education levels, gender and ethnicity, as well as current profession and location; (3) measure the "brain drain" out of Kansas to attend other institutions of higher education; and (4) determine how many individuals reside and/or work in Kansas.

The Kansas Board of Regents and the Kansas legislature are interested in the outcomes of this study to determine whether the original objectives of the academy have been reached and whether it continues to warrant a legislative appropriation of $110,000 annually in support.

II. REVIEW OF THE LITERATURE

In preparation for conducting this study and the development of the survey instrument, the author reviewed literature in three categories: (1) honors programs, (2) follow-up studies, and (3) "brain drain" studies. Piland and Asbell (1984) studied honors programs of students in eight community colleges in Illinois and Florida. They found that the percentage of females (63.1%) participating in honors programs was greater than that of males (36.9%). They also found that 59% of the students were in the traditional 18-year old age range and that white students made up 79% of the participants.

Another study, undertaken at William Rainey Harper College in Illinois, discovered that (1) honors students were more likely to be younger and female, and less likely to belong to a minority group; (2) 45% of the former honors students were employed full-time and 34% part-time; (3) the average full-time salary of the honors

attendees was $28,500 compared to $25,000 for recent former students; and (4) 72% had continued their education after leaving college compared to 65% for the regular student body (Lucas, Hull & Brontley,1995). Sanborn (1979) summarized the results of several follow-up studies in Wisconsin and concluded that gifted high school students did not evidence any different patterns of college attendance or college achievement than students in general. Another study of talented students found that they have difficulty deciding on a college and a major because of their multiple talents (Fredrickson, 1979). Benbow and Stanley (1983, 1984) found gender differences in both educational plans and career aspirations among honors students, with males oriented more toward science and technology and females toward the social and health sciences. Kerr and Colangelo (1988) studied 76,000 adolescents who took the ACT test and found the most popular majors were in engineering, with three times as many males favoring this major, and health sciences which was favored by three times as many females. Arnold and Denny (1985) followed top Illinois high school graduates from 33 high schools and found that 47% attended public colleges, 24% private colleges, and 21% religiously affiliated colleges. Sixty-eight percent attended in-state colleges, and the most popular majors were business (24%), engineering (19%), and science (19%).

Howley, Harmon, and Leopold (1997) studied the students who attended West Virginia's Governor's Honors Academy and found that gifted students placed greater importance on quality of schools when imagining an ideal community than did the comparison group and that they were significantly less satisfied with their communities than gifted students living in a more urbanized West Virginia community. The bright students living in the rural areas left their communities in higher numbers in search of better opportunities. Hansen and Neujahr (1976) studied science honors program students

at Columbia University and found that as a group they came from advantaged backgrounds: 73% of the fathers and 61% of the mothers had attended college; 34% of the fathers and 13% of the mothers had attended graduate schools; and 73% of the fathers were employed in either a professional position or were teaching. The majority of the honors students majored in math, science, or engineering. The author also discovered a relationship between gender and the choice of major; males were more heavily represented in the physical sciences while females were more heavily represented in the biological sciences. Furthermore, over 80% of the honors students attended graduate school.

Several researchers have studied the question of who pursues post-baccalaureate education. Baird (1976) found that honors students and students with "A" grade averages are more likely than non-honors students and students with lower grades to pursue graduate study. A greater determinant for pursuing advanced study was found to be gender. Males were more likely than females to have immediate post-baccalaureate educational plans.

One of the original intentions of the Kansas legislature and the Kansas Board of Regents in creating the Honors Academy was to stem the "brain drain" out of the state of Kansas of bright students attending other institutions of higher education. This concern is not just confined to the state of Kansas. In Wisconsin, the university system and the State Department of Public Instruction conducted a study of Wisconsin's top graduating high school seniors in 1998. This study found that the most important reasons for choosing to go out of state were friendly students, a diverse student body, and a helpful faculty. Students who attended public institutions within the state ranked low tuition and friendly students as the most important aspects. The study also found that engineering, business,

health sciences, and physical sciences were the majors most preferred, and that there was very little difference between females and males in choosing these majors. The personal concerns among females and males were also very similar: finances, loneliness, concerns at home, health, depression, and future. Other significant findings were that many of the students required five years to graduate, that most were planning on graduate or professional school, and that there did not seem to be a "brain drain" since 63% of the males and 71% of the females attended Wisconsin colleges (Perrone & Dow, 1992).

An additional follow up study on the "brain drain" in the state of Wisconsin by Durden (1989) found that the state did not compare well with neighboring states in general academic preparation or in opportunities for academically talented students. Significant numbers of the state's most able high school graduates were not targeted for recruitment by the state's public institutions of higher education.

A Kansas study of 1,926 students, who were National Merit semi-finalists between 1970-1980, found that almost 60% of these individuals left the state. Furthermore, the author found that few of the semi-finalists stayed in their home towns and most went to major cities across the country. In almost every occupation, more semi-finalists left the state than stayed, but the losses were particularly great in the fields of science, high-technology, medicine and law. Those individuals staying in Kansas chose occupations in fields that have traditionally been recognized as strengths in the state of Kansas—agriculture, manufacturing, and education. Western Kansas suffered the most severe brain drain with the vast majority of its semi-finalists either moving to locations in eastern Kansas or leaving the state (Polczinski & Freinkel, 1986). Westerman (1993) found that 38% of the National semi-finalists attended Kansas universities or colleges. A follow-up in 1996 by Moline indicated 6 of 10 were leaving Kansas.

Braddock (1992) proposed that one way for states to lessen the "brain drain" would be to provide educational vouchers which would restructure the educational system to shift the emphasis away from a comprehensive common school model to a more pluralistic conception of schools that span both the public and private sectors. In a Kansas Regents office report, Welsh (1988) concluded that Kansas Regents institutions were not collecting systematic data that could be used to demonstrate a reversal of the "brain drain" in the state of Kansas. Most efforts on the campuses were directed at recruitment largely through monetary inducements. Initiatives at retention were found to be lacking and tended not to be aimed at high ability students. A Kansas legislative report (1986) concluded that "brain drain occurs at two points - when students leave Kansas to go to schools and when they finish school and leave and go to work."

A *New York Times* article (February, 1998) described a Nebraska plan whereby the legislature partnered with private business to pay the best and brightest individuals to stay in the state and attend state schools. The program paid up to one half of the undergraduate or graduate school costs if the student agreed to stay and work in the state for three years after graduation.

III. PROCEDURES AND METHODOLOGY

The Kansas Board of Regents provided rosters of each of the Honors Academy classes for the twelve years of the academy's existence. There were approximately 1,640 names on these rosters. A survey was developed, reviewed by significant individuals on the Emporia State University campus for final refinement, and mailed to the honors graduates. The mailing (see Appendix A), in addition to the survey instrument, included a cover letter explaining the purpose of the survey and requested the students' cooperation.

An addressed, stamped envelope for returning the survey to the Jones Institute for Educational Excellence also was included. On the cover envelope containing the survey, a request was made to forward the envelope if the addressee no longer lived at that address. Academy graduates were asked to return the questionnaire by November 1, 1998. They also were encouraged to provide additional information, if they wished, on the back of the instrument.

The survey sought information in the following categories: (a) background and identifying data – name, age, current address, social security number, high school attended and location, ethnicity, marital status, family educational level and income; (b) college data – location, degrees, majors, GPA, scholarships, employment; (c) activities – community and leisure time, hobbies; and (d) open ended comments regarding experiences obtained from attending the academy.

Following the initial survey response deadline, only 18% (300) of the surveys had been completed and returned. Because the response rate was low, alternative measures were implemented to contact participants. An Internet search of online people locators led to the Anywho Directory Service at <http:// anywho.com> as a means of locating the current telephone numbers and addresses of the Honors Academy participants. Using this directory, a random sample of about 30% (400) of the remaining participants were selected to be searched on the Internet. Of this sample, approximately 30% (125) were targeted for notification. Of this group, 20% (25) were actually contacted and responded to the survey. Only 6.25% of the total participants searched through the directory service resulted in usable survey information.

Statistical analyses were performed and demographic information was coded using basic statistical coding methods. The high schools represented by each of the

participants were coded by the appropriate State of Kansas Unified School District numbers according to the 1998-99 *Kansas Educational Directory*. Occupations of individuals who had already entered the labor force were coded by their two-digit occupational divisions found in the *Dictionary of Occupational Titles* (4th ed., revised 1991). Individuals who were members of the armed forces were assigned slightly different codes to distinguish them from other service-related occupations.

The survey also requested participants to provide information concerning their civic and community activities and their hobbies and leisure time activities. This information was grouped into broad categories spanning several major interest areas. The civic and community activity involvement included religious, student, occupational, charitable, youth, medical, political, environmental, and service organization affiliations. The hobbies and leisure time activities included sports, reading and writing, art and music, movies, cooking, computer and games, friends and family, traveling, and gardening. Activities outside of these areas were grouped together into another category and labeled separately.

IV. ANALYSIS AND RESULTS

This survey investigated individuals who attended the Kansas Regents Honors Academy. Data for this study were analyzed using various descriptive statistics. A discussion of the results and their analyses are presented based upon the following tables.

Table 1:
Enrollment in Kansas Regents and Non-Regents Universities

School Category	Response Frequency	Response Percentage
Regents Universities	278	62.6%
Regents and Non-Regents Universities	35	7.9%
Non-Regents Only	39	8.8%
Total Number Receiving Higher Education in Kansas	352	79.3%

Valid Responses: 444

One of the purposes of establishing the Regents Honors Academy was to acquaint students with Kansas Regents universities and to encourage them to attend those institutions. Table 1 data indicate that purpose is being accomplished. Of 444 valid responses, 278 individuals (62.6%) attended Regents schools. An additional 74 students attended both a Regents institution and/or a non-Regents school, which increases the overall percentage to 79.3%.

Another concern of both the Kansas Legislature and the Kansas Board of Regents is the number of top academic students in Kansas who leave the state as part of the publicized "brain drain." Again, Table 1 data indicates that 79.3% of these top students were staying in the state of Kansas to attend college at Regents or other Kansas institutions.

Table 2:
Enrollment in Kansas Non-Regents Universities

School Category	Response Frequency	Response Percentage
Non-Regents Universities	39	8.8%

Valid Responses: 443

Thirty-nine of the respondents attended only non-Regents schools in the state of Kansas, such as Washburn University, Bethany College, Mid-America Nazarene University, Baker University, Ottawa University, and some community colleges.

Table 3:
Enrollment at Out-of-State Universities

School Category	Response Frequency	Response Percentage
Out of State Universities	85	19.1%
Military Academy Appointments	7	1.6%
Total Attendance Outside Kansas	92	20.7%

Valid Responses: 444

Ninety-two students, almost 21% of the Regents Academy survey respondents, attended universities outside the state of Kansas. They matriculated in such institutions as Harvard, Yale, Princeton, Rice, Notre Dame, Cornell, Stanford, and Duke. Seven of these individuals attended U.S. military academies.

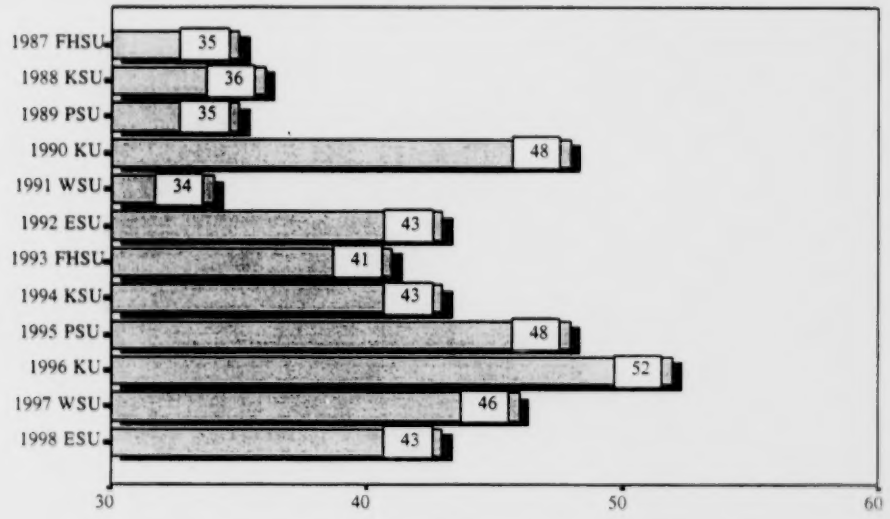
Table 4:
Kansas Residence

Residence Category	Response Frequency	Response Percentage
In-State Residence	348	70%
Out-of-State Residence	149	30%

Valid Responses: 497

Table 4 indicates that 348 (70%) of the responding students still reside or work in the state of Kansas.

Chart 1:
Honors Academy Attendance Response Rate



The responses from the twelve academies ranged from 34 (1991) to 52 (1996). The responses were distributed fairly evenly among all classes with a mean response rate of 42.

Table 5:
Enrollment Response by Gender

Gender	Response Frequency	Response Percentage
Male	170	33.7%
Female	334	66.3%

Valid Responses: 504

The number of females responding to the survey exceeded the number of males by a ratio of almost 2:1. This ratio differed from the actual academy participant ratio which was 41% males and 59% females. The ethnic breakdown of the sample is 459 white, 5 black, 6 Hispanic, 24 Asian, and 6 of racial mixture. The percentages for these categories are white-91.8%, black-1%, Hispanic-1.2%, Asian-4.8%, and racial mixture-1.2%.

Table 6:
Enrollment Response by Ethnicity

Ethnicity	Response Frequency	Response Percentage
White	459	91.8%
Black	5	1.0%
Hispanic	6	1.2%
Asian	24	4.8%
Racial Mixture	6	1.2%

Valid Responses: 500

Table 7:
Respondent Marital Status

Marital Status	Response Frequency	Response Percentage
Married	108	21.8%
Unmarried	388	78.2%

Valid Responses: 496

Marital status of the attendees indicated that 108 of the respondents were married and 388 were not married. Of those that were married, 83 (76.9%) of their spouses had degrees.

Table 8:
Spouse Educational Level

Spouse Education	Response Frequency	Response Percentage
Spouse with a college degree	83	76.9%
Spouse without a college degree	22	20.4%
Did not respond	3	2.7%

Valid Responses: 108

Table 9:
Degrees Obtained

Degree Granted Category	Response Frequency	N	Response Percentage
Associate's	10	363	2.8%
1st Bachelor's	240	272	89.2%
2nd Bachelor's	34	231	14.7%
Master's	30	188	16.0%
Doctor of Philosophy	2	106	1.9%
Juris Doctorate	10	106	9.4%
Medical Doctor	9	71	12.7%

N = The number of participants eligible to have achieved the respective degree based on their age at the time of data collection.

Ten of the respondents obtained an associate degree, 240 obtained baccalaureate degrees, 34 obtained a second baccalaureate degree, 30 obtained master's degrees, 2 received PhD.s, 10 became lawyers, and 9 became medical doctors. In addition, several participants are currently pursuing advanced degrees, but have not yet received diplomas. These include 13 students in medical school working toward an MD., 4 working toward a doctorate of pharmacy, 10 in Juris Prudence programs, 26 pursuing a PhD. in various fields, and 32 students in master's degree programs.

Table 10:
Bachelor's Degree Majors

Major Category	Degree Granted Frequency	Degree Granted Percentage
Biological Sciences	42	15.4%
Social Sciences	41	15.0%
Business	36	13.2%
Engineering	33	12.1%
Education	22	8.1%
English	22	8.1%
Math & Computer Sciences	14	5.1%

Valid Responses: 273

At the baccalaureate level, the most popular major was biology, followed by social science, business, engineering, education, English, and math/computer science. As shown in Table 10A, the master's degree major most frequently chosen was business, followed by engineering, social sciences, education, and psychology.

Table 10A:
Master's Degree Majors

Major Category	Degree Granted Frequency	Degree Granted Percentage
Business	7	23.3%
Engineering	6	20.0%
Social Sciences	5	16.7%
Education	3	10.0%
Psychology	3	10.0%

Valid Responses: 30

Table 11:
Accumulative Grade Point Average of Respondents

School Category	N	Mean	Standard Deviation
Regents Universities	252	3.61	0.38
Regents and Non-Regents Universities	35	3.78	0.24
Non-Regents Only	38	3.71	0.34
Out of State	81	3.55	0.51
High School Students	45	3.94	0.10
Total Respondents GPA	451	3.66	0.39

Valid Responses: 451

The college mean grade point average of all respondents was 3.66. For those individuals attending Regents schools, the mean was 3.61. For those who attended non-Regents schools, the mean was 3.71. For those who attended out-of-state institutions, the mean was 3.55. Students who are still in high school have a mean GPA of 3.94. Individuals who attended both a Regents and non-Regents institution had a mean GPA of 3.78.

Table 12:
Financial Aid Received by Respondents

Type of Financial Aid Received	Response Frequency	N	Response Percentage
Total Scholarships	407	444	91.7%
Scholarships received by those attending Kansas Regents universities	261	407	64.1%
Total Grants	150	444	33.8%
Grants received by those attending Kansas Regents universities	83	150	55.3%
Total Loans	205	444	46.2%
Loans received by those attending Kansas Regents universities	119	205	58.0%

N= The number of individuals per category who received financial assistance.

Of the respondents, 407 (91.7%) received scholarships to attend higher education institutions. Of those individuals, 64% received scholarships to attend Kansas Regents institutions. One hundred fifty (33.8%) of the respondents received grants to attend higher education institutions. Of those individuals, 55% attended Regents universities. Additionally, 46% of the respondents received loans to attend college. Other respondents received financial aid in the following forms: 22 participated in campus work-study programs, 11 received fellowships, and 8 served as research assistants.

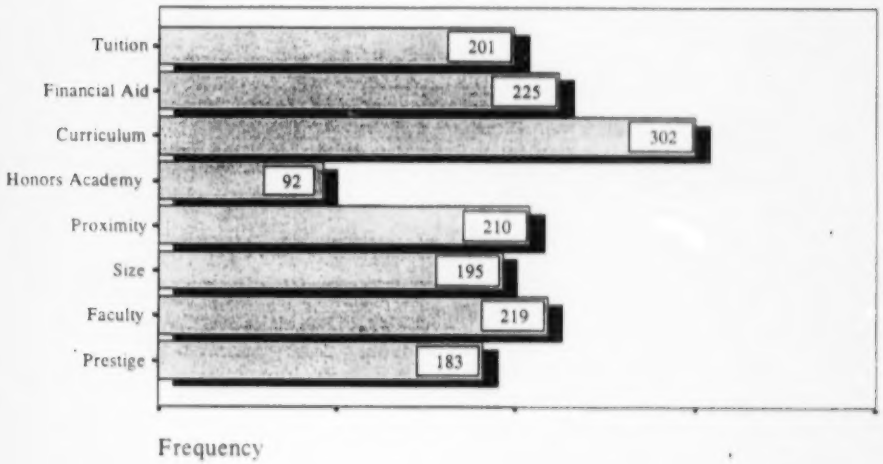
Table 13:
College Employment of Respondents

Type and Location Of Employment	Response Frequency	N	Response Percentage
Full-time Employment	31	444	7.0%
Part-time Employment	339	444	76.4%
Employment On Campus	256	444	57.7%
Employment Off Campus	170	444	38.3%
Regents University Students			
Employment On Campus	163	274	59.5%
Employment Off Campus	91	274	33.2%

N= The total number of individuals per employment category.

Only 31 (7%) of the academy attendees worked full-time during the pursuit of their undergraduate education. However, 339 (76.4%) held part-time jobs during college attendance. Of those, 256 (57.7%) worked on the college campuses and 170 (38.3%) held jobs off the campus. Of the individuals attending Regents schools, 163 (59.5%) worked on campus and 91 (33.2%) were employed off campus.

Chart 2:
Factors Influencing Choice of Undergraduate Institution



The primary reasons given by respondents for selecting a college are ranked in order as follows: (1) the availability of the major in the institution's curriculum, (2) financial aid, (3) faculty reputation, (4) proximity to home, (5) tuition, (6) size, (7) prestige of the institution, and (8) involvement in the Honors Academy. The reason that the Honors Academy did not have a greater influence on the selection of a college is that most of the individuals had already decided which college to attend by the time they attended the Honors Academy. However, 47% of the Honors Academy attendees participated in a college honors program at the school of their choice.

Table 14:
Leisure Time Activities

Type of Activity	Response Frequency	Response Percentage
Sports & Exercise	316	62.7%
Reading & Writing	252	50.0%
Art & Music	179	35.5%

Valid Responses: 504

Regents Honors Academy graduates are very active individuals and participate in a wide range of leisure activities. Those that were mentioned most frequently were sports and exercise (316, 62.7%), reading and writing (252, 50%), and art and music (179, 35.5%). Other major interests mentioned by the respondents included computer activities, cooking, time with friends and family, gardening, and travel.

Table 15:
Community Activities

Type of Activity	Response Frequency	Response Percentage
Religious	145	28.8%
Student & Alumni	132	26.2%
Youth Organizations	90	17.9%
Service Organizations	65	12.9%
Charitable Organizations	57	11.3%

Valid Responses: 504

Regents Honors Academy graduates have been very active in a variety of community activities. Those most frequently listed were religious organizations (145, 28.8%) and student and alumni activities (132, 26.2%).

Table 16:
Parental Educational and Salary Levels

Educational Level	Response Frequency	N	Response Percentage
Father's Education:			
Bachelor's	130	434	30.0%
Master's	88	434	20.3%
PhD.	17	434	3.9%
Juris Doctorate	10	434	2.3%
Medical Doctor	18	434	4.1%
Mother's Education:			
Bachelor's	147	429	34.3%
Master's	91	429	21.2%
PhD.	4	429	0.9%
Juris Doctorate	2	429	0.5%
Medical Doctor	1	429	0.2%
Annual Parental Income Levels:			
Less than $25,000	38	428	8.9%
$25,000 - $50,000	172	428	40.2%
Over $50,000	218	428	50.9%

An examination of the survey question regarding parental education levels indicated that of the fathers, 130 (30%) had bachelor's degrees, 88 (20.3%) had master's degrees, 18 (4.1%) had MD.'s, 17 (3.9%) had PhD's., and 10 (2.3%) possessed JD.'s. Among the mothers, 147 (34.3%) had bachelor's degrees, 91 (21.2%) possessed master's degrees, 4 had PhD.'s, 2 had JD.s, and 1 had a MD. Breakout of parental income revealed 38 (8.9%) making less than $25,000 per year; 172 (40.2%) making $25,000-$50,000 annually; and 218 (50.9%) making over $50,000 per year.

Table 17:
Current Occupations of Honors Academy Respondents

Occupational Category	Response Frequency
Management, Military & Administrative Specialization	54
Engineering, Math, Computer, Physical & Life Sciences	33
Medicine	29
Education	25
Sales & Clerical	14
Law	12
Art, Writing, & Entertainment	8

The most frequent occupations of respondents included physician, attorney, professor, teacher, nurse, financial planner, hospital administrator, business executive, insurance agent, banker, engineer, computer scientist, and military officer. Salaries listed for the respondents who are employed full-time range from a low of $13,000 per annum to a high of $93,000.

Table 18:
Current Salary Ranges of Honors Academy Respondents

Occupational Category	Salary Range
Management, Military & Administrative Specialization	$23,000 -- $93,000
Engineering, Math, Computer, Physical & Life Sciences	$16,000 -- $70,000
Medicine	$25,000 -- $50,000
Education	$16,000 -- $46,000
Sales & Clerical	$13,000 -- $52,000
Law	$30,000 -- $90,000
Art, Writing, & Entertainment	$20,000 -- $70,000

V. DISCUSSION

The discussion and analysis of the survey data include responses received from the respondents, and conclusions were drawn on the basis of those responses. There were 504 responses which represented a return rate of over 30%.

Participants in the study were asked to provide information about what they believed to be the strongest aspects of and the most valuable assets gained from their academy experience. They also were asked to provide feedback about what they believe to be weaknesses of or recommended changes to improve the Honors Academy. The majority of the participants said the strongest aspect of the academy was that it provided them with the college experience without actually enrolling at a university. Other popular responses were that the academy provided them with a great deal of intellectual stimulation, a challenging curriculum, and excellent instructors and support staff. A large number of the participants also stated that the academy provided them with a social network of intelligent friends who possessed many common interests. Several of these students still maintain close relationships with others they met while attending the Honors Academy.

Social awareness and interaction were listed as the most valuable assets gained from the academy experience. However, several participants said the experience helped them build confidence in their abilities while teaching them responsibility and discipline. Students said time management was a very important asset they took away from the academy and still use every day.

Participants' recommendations for change included allowing students more choice in selection of the classes, increasing the course load, and doing away with the mandatory extracurricular activities. However, the two most strongly recommended

changes were (1) to allow classes to transfer for credit toward core requirements for a degree instead of transferring for elective credit only and (2) to allow the students more time for social activities.

VI. FINDINGS

1. The Academy is accomplishing several of its goals: more of the state's academically talented are staying in the state; are attending Regents and other Kansas institutions; and are residing and employed in Kansas.
2. The Kansas Honors Academy selection process has worked well in picking academically talented students to attend the summer programs as evidenced by their academic and extracurricular successes in college.
3. Responding students felt the Academy faculty and programs motivated them academically and challenged their thinking and reasoning skills. They further reported being stimulated by interacting and associating with other bright, intellectual peers, and found the faculty to be friendly and very accessible.
4. Many participants indicated that they grew socially from attending the Honors Academy because of personal interactions with peers. Several cited close friendships developed with other attendees, some of which persist today. They also enjoyed group study and group class projects.
5. The Honors Academy meets the needs of an identifiable group of students who overall were very pleased with the experience.
6. There is no appreciable "brain drain" of the best and brightest students from the state of Kansas. Seventy-eight percent of the Honors Academy graduates are attending Kansas schools.

7. The Regents Honors Academy graduates brought recognition and acclaim to the programs through their accomplishments in colleges, careers, and communities. This included student body offices, Who's Who, national and international scholarships, special awards, publications, and exhibitions.
8. The Honors Academy graduates were and are becoming active participants in civic and community activities.
9. Students cited the opportunity to work with updated equipment and technologies, extensive libraries, field trips, and guest lecturers as outstanding features of the academies.
10. The study found the following academic information about the Academy graduates:
    a. Bachelor's degrees were obtained by 237, 30 obtained masters, and 21 received doctorates.
    b. The most frequent undergraduate major was biology.
    c. The most frequent graduate major was business.
    d. The undergraduate cumulative grade point average was 3.66 for all respondents, 3.61 for regents university attendees, and 3.55 for those who attended out of state institutions.
    e. Scholarships were received by 89% and other financial aid by 45%.
    f. Graduates degrees have been obtained by 51 students; the number currently pursuing graduate degrees is 84. Sixty-six percent of Honors Academy respondents are in or have graduated from graduate school.

11. The respondents were involved in the following leisure activities *(totals will not equal 100% because students listed more than one activity):
    a. Reading and writing (50%)
    b. Sports (63%)
    c. Art and music (36%)
12. There was a low representation of minority attendees selected for attendance at the academy. Only 8% of the participants represented minority ethnic groups.
13. Similarly, there were more female respondents than male 331 to 169.
14. It was discovered that 76% worked during school attendance in semi-skilled positions such as fast food clerks, table servers, gas station attendants, office workers, and computer programmers. Only 31 individuals worked full time while attending college.
15. The Honors Academy graduates participated in college honors programs in a higher proportion than the average student body (47%).
16. Among the parents of the respondents, 52% of the fathers had college degrees compared to 51% of the mothers. The combined earnings of the parents exceeded $50,000 annually (51%) and another 40% were in the 25-50 thousand category.

VII. RECOMMENDATIONS AND OBSERVATIONS

1. Universities, colleges, and community colleges need to provide more honors programs and accelerated academic opportunities during the academic year for the academically talented students on campus.
2. Future academies need to focus on recruiting minorities into the Honors Academy and balancing the male-to-female ratio.

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3. Future academies should devote some time to such salient, practical issues as financial aid, the registration process, adjusting to large classes or large campuses, and other elements that students will encounter on campus.
4. Kansas high schools should administer the PSAT test to all students in order that they might qualify as National Merit semifinalists and finalists.
5. The state of Kansas and the Kansas Board of Regents should increase scholarship allocations to encourage Honors Academy graduates to attend Regents institutions.
6. The state of Kansas legislature should implement a program similar to the Nebraska program which pays academically talented students to attend a Nebraska state institution if they agree to work in the state for at least three years after graduation.
7. The Kansas Board of Regents office should update addresses and phone numbers on Academy attendees every two years to facilitate future research studies.
8. Finally, information collected by this survey and the analysis of the data would indicate that the Kansas Regents Honors Academy has been a valuable experience for its graduates. The allocation of state appropriations for its continuance is warranted.

Therefore, it is recommended that the Kansas Regents Honors Academy continue to operate each summer on a rotating basis among the Kansas Regents universities' campuses.

BIBLIOGRAPHY

Arnold, K.D. & Denny, T. (1985). "*The Lives of Academic Achievers.*" Paper presented at the annual meeting of the American Educational Research Association. Chicago, Il.

Baird, L. L. (1976). "Who Goes To Graduate School and How they Get There." In J. Katz and R.T. Harnett (Eds).. *Scholars in the Making: The Development of Graduate and Professional Students*, pp. 19-48. Cambridge, MA: Ballinger.

Belluck, P. (1998). "Stay, Nebraska Begs Its Brightest, We'll Pay You." *New York Times*, 147, A1(7-8).

Benbow, C.P. & Stanley, J.C. (1983). "Sex Differences in Mathematical Reasoning Ability: More Facts." *Science*, 222, 1029-1031.

Benbow, C. P. & Stanley, J.C. (1984). "Gender and the Science Major: A Study of Mathematically Precocious Youth." In M.W. Steinkamp and M.L. Maehr (Eds). *Women in Science*, pp. 165-196. Greenwich, CT: JAI Press.

Braddoch, J. H. (1992). "Quality and Equality: Compatible or Incompatible Goals." *Phi Delta Kappan*, 63(3) 166.

Fredrickson, R. (1979). "Career Development and the Gifted." In N. Colangelo and R. T. Zaffran (Eds). *New Voices in Counseling The Gifted*, pp. 264-275. Dubuque, IA: Kendall/Hunt.

Hansen, R. A. & Neujahr, J. (1976). "Career Development of High School Students Talented in Science." *Science Education*, 60(4) 453-462.

Howley, C., Harmon, H, & Leopold, G. (1997). "Rural Scholars or Bright Rednecks? Aspirations for Sense of Place." *ERIC Higher Education Research Report*, #ED 404063 Washington, DC.

Kansas Legislative Research Department. (1986). "Brain Drain." Unpublished report to Legislative Educational Planning Committee, August 18, 1986. Topeka, KS.

Kerr, B.A. & Colangelo, N. (1988). "The College Plans of Academically Talented Students." *Journal of Counseling and Development*, 67, 42-48.

Lucas, J.A., Hull E., & Brantley, F. (1995). "Follow-up Study of Students Taking Honors Courses." *ERIC Higher Education Research Report*, #J.C. 960513. Washington, DC.

McKnight., P. C. (1987). "Proposal Regarding the Establishment of Regents Honors Program." Unpublished Report Presented to Kansas Board of Regents August, 1987. Topeka, KS.

Moline, M. (1996). "Best & Brightest Leaving Kansas." *Topeka Capital Journal*, September 22, p. 5.

Moran, M.G. (1992). "Frank Aydelotte, Oxford University, and the Thought Movement in America." *ERIC Higher Education Research Report*, ED#344230. Washington, D.C.

Perrone, P. and Dow, E. (1992). "First and Second Year College Experiences of Wisconsin's Academically Talented 1988 High School Graduates." *Roeper Review*, 15(3. 144-148.

Piland, W.E. and Azbell, J. (1984). "The Honors Program Student: A Typical Profile." *Community and Junior College Journal*, (April. 45-47).

Polczinski, A. and Freinkel, S. (1986). "Bright, Young Kansans Slipping Away." *Wichita Eagle Beacon*, February 9,10, pp. 1-7A.

Sanborn, M.P. (1979). "Differential Counseling Needs of the Gifted and Talented." In N. Colangelo and R. T. Zaffran (Eds). *New Voices in Counseling the Gifted*, pp. 154-164. Dubuque, IA: Kendall/Hunt.

Welsh, J. F. (1988). "Campus Responses to the "Brain Drain." Unpublished report to Stan Koplik, September 30, 1988. Topeka, KS.

Westerman, W. S. (1993). "Kansas National Merit Semifinalists." *Jones Institute for Educational Excellence*, April, 1981. Emporia, KS.

APPENDIX

EMPORIA STATE UNIVERSITY

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JONES INSTITUTE FOR EDUCATIONAL EXCELLENCE
THE TEACHERS COLLEGE
Campus Box 4036

September 25, 1998

Dear Former Regents Honors Academy Student:

The Kansas Regents Honors Academy Program has just completed its 12th year of providing special recognition to Kansas high school seniors for their outstanding academic achievements. We are conducting a follow-up study to assess the program's impact on those who attended the academy since its inception in 1987. However, in order to do that we need your help. We need to know in what ways the program has affected your life.

The Jones Institute for Educational Excellence, commissioned by the Kansas Board of Regents, has constructed the enclosed survey to collect information vital to the assessment of the program. This survey is being sent to all of the former Honors Academy students. Please take a few minutes to complete the form and return it in the enclosed self-addressed envelope at your earliest possible convenience, but by November 1, 1998.

The Jones Institute for Educational Excellence and the Kansas Board of Regents would like to thank you in advance for your assistance with this study. If you need additional space for your responses, please write on the back of the form or attach a separate sheet.

Sincerely,

Robert E. Glennen
President Emeritus, Jones Distinguished
University Professor
Emporia State University

An Equal Opportunity Employer

Kansas Regents Honors Academy
Follow-up Study

Name:_____ (maiden)_____

Gender:____M____F Age:_____ Social Security Number:_____

Ethnicity:
- ___ White (European, N.African, Mid.East)
- ___ Black (Black racial groups of Africa)
- ___ Hispanic (Mexico, Puerto Rico, Cuba, etc)
- ___ Asian or Pacific Islanders (China, Japan, Korea, etc)
- ___ American Indian or Alaskan Native

Marital Status:____M____S____D (If married, does your spouse have a college degree?____Y____N)

Name of high school:_____ Graduation date:_____
Location:_____
Year attended the Honors Academy:_____ Honors Academy location:_____
Current address:_____
_____
Currrent phone number:_____

Current occupation: _____ Student:_____yes _____no
If employed, annual salary:_____
If student, where enrolled:_____
Major:_____Cumulative GPA:_____

If you attended or are currently attending college, in what form(s) did you receive assistance?
_____scholarships _____grants _____loans other financial aid (list):_____

Did you participate or are you participating in a college honors program? _____yes _____no

If you attended or are currently attending college, which factor(s) influenced your decision to attend your undergraduate institution? (Please check all that apply.)
- ____ tuition
- ____ financial aid
- ____ curriculum (major)
- ____ involvement in the Honors Academy
- ____ proximity to home
- ____ size of the institution
- ____ quality of the faculty
- ____ prestige of the institution

Were/are you employed while attending school? _____yes _____no _____full-time _____part-time
_____ on campus _____ off campus

If you attended the Academy before 1995, please fill out the following.
Name and location of colleges attended:_____
_____
Undergraduate major:_____Degree received:_____Cumulative GPA:_____

List advanced degrees obtained:_____
Universities and dates attended:_____
Publications and research projects:_____
_____
Highest degree obtained by father:_____by mother:_____
Annual parental income:_____Under $25,000 _____$25,000-$50,000 _____Over $50,000

List civic/community activities:_____
_____

List hobbies/leisure time activities:_____
_____

List the strongest aspects of the Honors Academy:_____
_____

List the most valuable assets you gained from your academy experience:_____
_____

List any weaknesses and or changes you would recommend in the Honors Academy:_____
_____

Additional comments:_____
_____

ABOUT THE AUTHOR

Robert E. Glennen is president emeritus of Emporia State University, Emporia, Kansas, having served from 1984 to 1997. During the 1998-99 academic year, he served as the Jones Distinguished University Professor in the Jones Institute for Educational Excellence at Emporia State University. He began his career as an instructor and baseball coach at the University of Portland, Oregon, and has held numerous leadership positions in higher education since. He has served as an associate professor at Eastern Montana State College; associate dean of the Freshman Year of Studies at the University of Notre Dame; dean of the University College, vice-president for educational services, and acting vice-president for academic affairs at the University of Nevada-Las Vegas; and president of Western New Mexico University. He received his bachelor's degree in languages, philosophy, and education and a master's degree in educational administration from the University of Portland, and a doctoral degree in counseling and social psychology from the University of Notre Dame, Indiana.

Dr. Glennen has been a college academic advising and retention consultant for more than 35 colleges, universities, and community colleges across the U.S. and has received numerous awards for his work in and support of teacher education, including the award for Outstanding Support of Teacher Education from the American Association of Colleges for Teacher Education. His presentations and publications have been focused in the areas of academic advising, student retention, and enrollment management. Dr. Glennen was instrumental in creating and establishing the National Teachers Hall of Fame in Emporia, Kansas, and has served as the president of the National Teachers Hall of Fame foundation since 1989. In the private sector, he has served on the boards and councils of many public and civic organizations, has been a professional baseball scout for the Philadelphia Phillies, and was inducted into the Athletic Hall of Fame at the University of Portland.

Dr. Glennen and his wife, Mary, a University of Portland nursing school graduate, have eight children, six of whom have attended Emporia State University.

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The Jones Institute for Educational Excellence in The Teachers College at Emporia State University has played an important role in the advancement of education in Kansas. Originally established in August 1982 as the Center for Educational Research and Service, the institute is experienced in policy analysis, field service, research, grant administration, and publications. Flexible and creative, the Jones Institute is prepared to initiate and respond to proposals, suggestions, and projects that are designed to enhance the quality of education in Kansas.

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